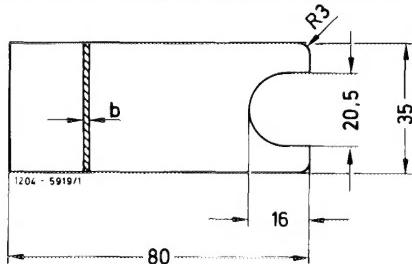


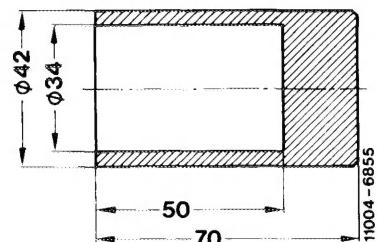
## 20-220 Reconditioning of coolant pump

### Self-made tools

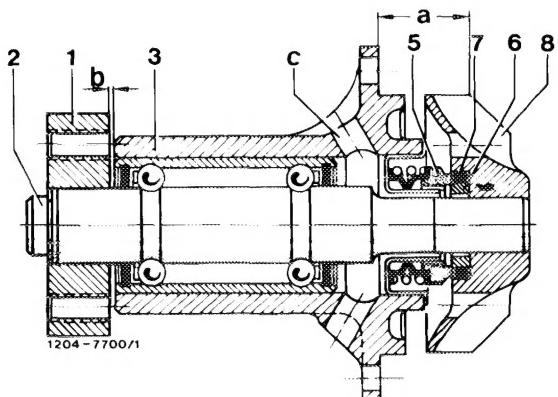
Spacing plate  
 $b = 1 \text{ mm}$



Installation sleeve

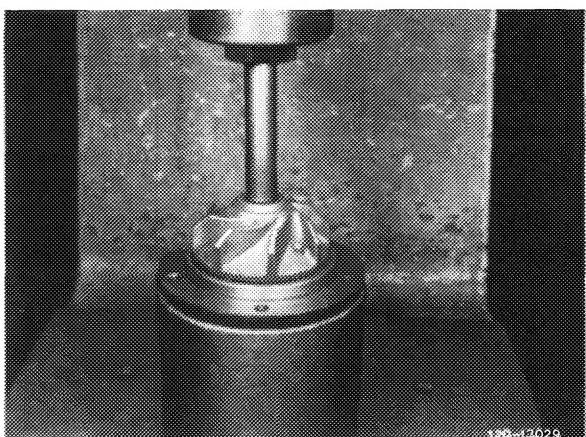


- |  |                |
|--|----------------|
| 1 Flange (attachment fan, hub ring and pulley) | 6 Counter-ring |
| 2 Coolant pump shaft with compact bearing      | 7 Sealing ring |
| 3 Bearing housing                              | 8 Impeller     |
| 5 Slide ring sealing                           | a 22.8–23.2 mm |
|  | b 2 mm         |
|  | c Vent bores   |

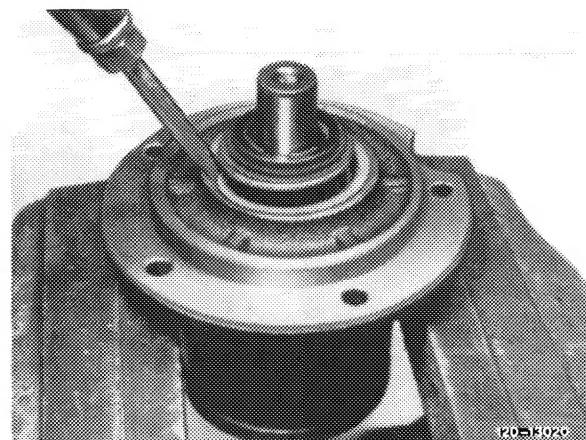


### Disassembly

- 1 Support bearing housing with pertinent tubing and press-out coolant pump shaft by means of a mandrel.



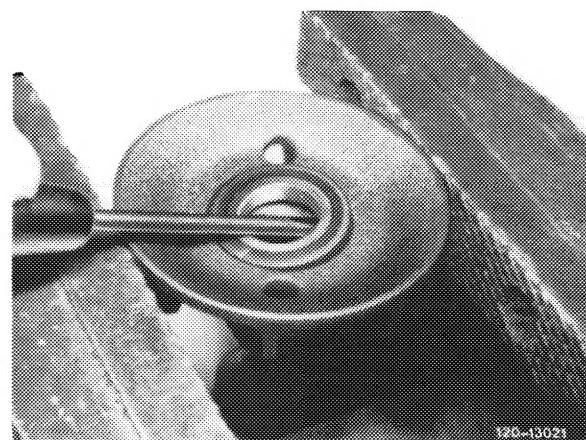
2 Apply light hammer blows at several points between bearing housing and sliding ring seal to cancel the preload and force sliding ring seal out.



120-13020

3 Force counter ring out of impeller.

**Note:** Replace coolant pump shaft with compact bearing and flange following disassembly on principle.



120-13021

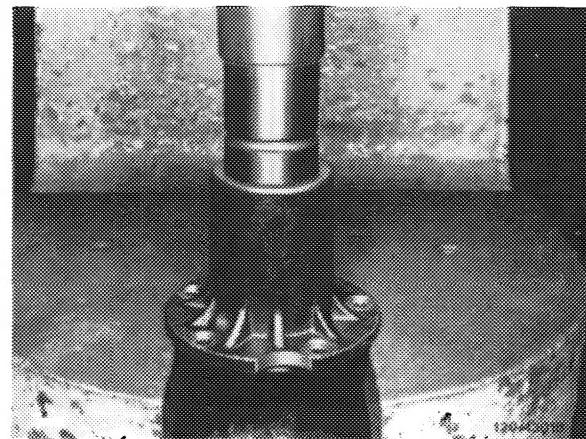
## Assembly

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4 Force-in new compact bearing flush with bearing housing by means of a tube positioned against outer race.

### Attention!

Do not press against coolant pump shaft.

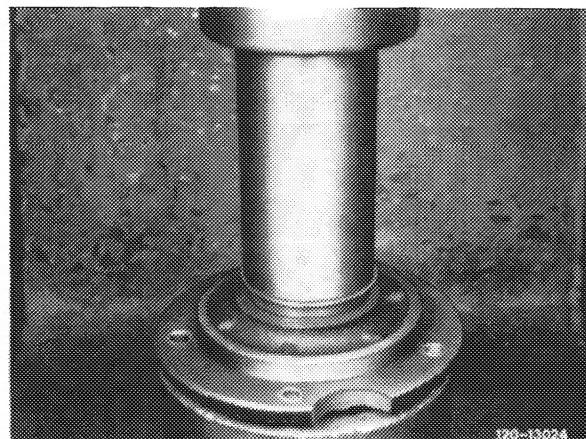


5 Lightly coat mounting bore of sliding ring seal in bearing housing with sealing compound (part No. 001 989 25 20).

Force-in or knock-in sliding ring seal with pressing-in sleeve.

### Attention!

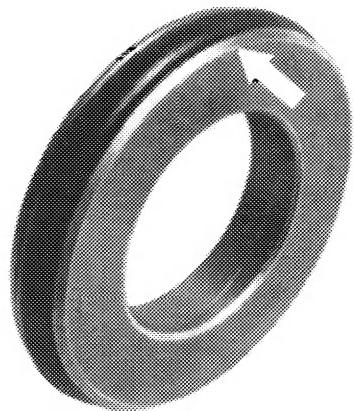
Support only against bearing housing and not against coolant pump shaft.



120-13024

6 Coat O-ring on counter-ring with brake cylinder paste and push with chamfered side (arrow) into thoroughly cleaned receiving bore in impeller.

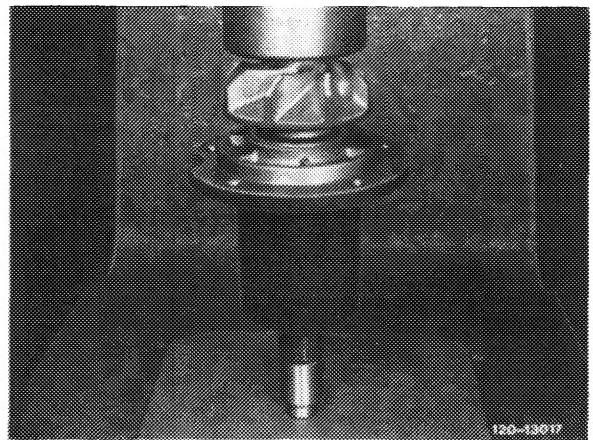
7 Clean sealing surfaces of counter-ring and sliding ring seal dust-free using a chamois cloth.



120 - 10863

8 Degrease both shaft studs of coolant pump shaft and bore in impeller.

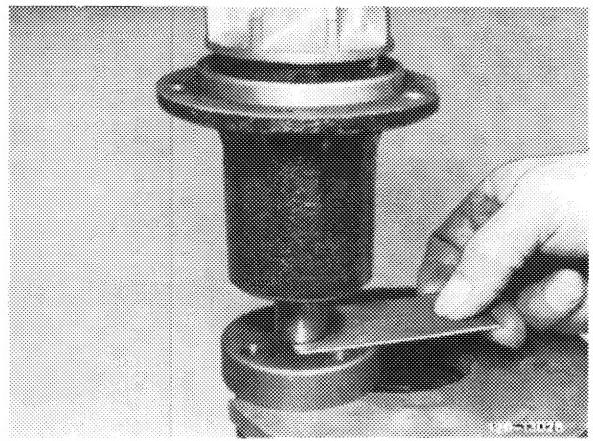
9 Press-on impeller flush with coolant pump shaft, while supporting coolant pump shaft.



120-13017

10 Heat flange on a hot plate up to approx. 300 °C (annealing color dark — up to light blue).

Place heated flange on a recessed base. Hold spacing plate on coolant pump shaft, slip coolant pump shaft on bore of flange and apply a blast of compressed air against flange. Wait for a few seconds until flange is firm and then immediately cool in water bath.



120-13025